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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,928	08/09/2001	Rodric C. Fan	TRMB-2096	6041
70409 7590 08/31/2010 TRIMBLE NAVIGATION LIMITED C/O WAGNER BLECHER 123 WESTRIDGE DRIVE WATSONVILLE, CA 95076				
EXAMINER TESLOVICH, TAMARA				
ART UNIT 2437		PAPER NUMBER		
MAIL DATE 08/31/2010		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/927,928

**Applicant(s)**

FAN ET AL.

**Examiner**

Tamara Teslovich

**Art Unit**

2437

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6, 9-11, 16, 17, 20, 25-27, 29-33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 9-11, 16, 17, 20, 25-27, 29-33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to Applicant's remarks and amendments filed July 26, 2010.

Claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 are pending and herein considered.

### ***Response to Arguments***

Applicant's remarks and amendments concerning the Examiner's previously set forth 35 USC 112 rejections have been considered and are persuasive. Accordingly, those rejections are withdrawn.

Applicant's arguments with respect to claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 have been fully considered and but are not persuasive. Applicant's remarks are focused entirely on an allegation regarding the combination of Spies and Inoue, more specifically the fact that "Spies and Inoue teach away from their combination." The Examiner respectfully disagrees. Obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the Examiner has relied upon Spies to teach the majority of Applicant's claim limitations while supplementing Inoue to impart

upon Spies' device wireless and GPS capabilities. Applicant argues that Spies' disclosure of provider computer units and other non-wireless devices teaches away from a combination with the mobile IP communication scheme disclosed in Inoue. The Examiner respectfully disagrees insofar as one of ordinary skill in the art would readily improve a communication system, such as that disclosed by Spies, through the addition of mobile devices in order to allow for increased mobility and flexibility in communications. The Examiner is unable to locate within the prior art references any particular disclosure requiring that the device in Spies be tied down to a particular location or non-wireless as the case may be. Rather, it appears that the commonplace use of wireless devices, such as that disclosed in the Inoue reference, occurred subsequent to Spies' filing for a patent application and as such, failed to appear throughout the Spies reference.

It is for the reasons presented above that the Examiner maintains her outstanding rejection of the claims in their entirety.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, 6, 9-11, 16-17, 20, 25-27, 29-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,055,314 to Spies, and further in view of United States Patent No. 6,501,767 B1 to Inoue et al.**

As per **claim 1**, Spies teaches a method for transmitting secured data over a wireless link, the method comprising:

utilizing a first key ("program key") to encrypt a payload (col.5 lines 10-24) by a device;

adding a header to the encrypted payload to form a data packet (col.9 lines 40-60), by said device;

utilizing a second key to encrypt the first key (col.5 lines 35-53) by said device;

utilizing a third key to encrypt the data packet (col.9 lines 40-60) by said device;

transmitting the encrypted first key separate from the encrypted data packet to a wireline device in a first transmission by said device, wherein the wireline device decrypts the encrypted first key (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41);  
and

transmitting only the encrypted data packet without said first key over a wireless link to a gateway in a second transmission from said device, wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header,

and forwards the encrypted payload and the header to the wireline device over an open network (col.3 lines 36-50); and

utilizing the wireline device and the first key from the first transmission to decrypt the encrypted payload (col.10 lines 49-56).

Spies fails to particularly disclose wherein the device is a mobile device and wherein the payload comprises the GPS location of said mobile device.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 2**, Spies teaches wherein the first key comprises a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 3**, Spies teaches transmitting the encrypted first key to the wireline device, wherein the wireline device decrypts the encrypted first key using a private key associated with the second key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 4**, Spies teaches wherein the third key comprises a symmetric session key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67).

As per **claim 6**, Spies teaches a device for transmitting secured data over a wireless link, the device comprising:

an encryption engine which generates a first key, encrypts a payload according to the first key (col.5 lines 10-24), adds a header to the encrypted payload to form a data packet (col.9 lines 40-60), encrypts the first key according to a second key (col.5 lines 35-53) and encrypts the data packet according to a third key (col.9 lines 40-60);  
and

a wireless transceiver coupled to the encryption engine, the wireless transceiver transmitting the encrypted first key separate from the encrypted data packet to a server in a first transmission from the device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41) and transmitting only the encrypted data packet without said first key over the wireless link to a gateway in a second transmission from the device, wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header, and forwards the encrypted payload and the header to the server over an open network (col.3 lines 36-50);

wherein the server decrypts the encrypted first key received in the first transmission and decrypts the encrypted payload of the second transmission using the decrypted first key (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices and wherein a payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 8**, Spies teaches wherein the first key employs a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67)

As per **claim 9**, Spies teaches wherein the payload comprises GPS location information obtained by the device and regarding a geographical location of the device (col.11 lines 40-60).



As per **claim 10**, Spies teaches a method for secured communication between a device and a server on a wide area network, the method comprising:

encrypting a payload at the device using a first session key (col.5 lines 10-24);

encrypting the first session key at the device using a public key (col.5 lines 35-53);

transmitting the encrypted first session key separate from the an encrypted data packet to the server over a link in a first transmission from the mobile device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41);

decrypting the encrypted first session key at the server (col.10 lines 49-56);

adding a header to the encrypted payload to form a data packet at the device (col.9 lines 40-60);

encrypting the data packet according to a second session key configured for secured communications over the wireless link (col.9 lines 40-60); and

transmitting only the encrypted data packet without said first key in a second transmission from the device to a gateway which decrypts the encrypted data packet to recreate the encrypted payload and the header, and forwards the encrypted payload and the header to the server (col.3 lines 36-50);

wherein the server utilizes the decrypted first session key, decrypted from the first transmission to decrypt the encrypted payload (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices and wherein a

payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 11**, Spies teaches wherein the decrypting the encrypted first session key at the server further comprises:  
decrypting the encrypted first session key at the server using a private key associated with the public key (col.7-col.8).

As per **claim 16**, Spies teaches generating the first session key at the device based on a random number (col.7-col.8; col.10).

As per **claim 17**, Spies teaches wherein the encrypting the payload at the device using the first session key further comprises encrypting the payload at the device using

the first session key, wherein the first session key employs an encryption algorithm selected from a group of the encryption algorithms consisting of DESX and DES (col.7 lines 41-55).

As per **claim 20**, Spies teaches implementing an encryption algorithm selected from a group of encryption algorithms consisting of DESX and DES (col.7 lines 41-55).

As per **claim 25**, Spies teaches wherein the payload includes GPS location information obtained by the wireless device and associated with a geographical location of the wireless device (col.11 lines 40-60).

As per **claim 26**, Spies teaches utilizing a random number to generate the first key (col.7-col.8; col.10).

As per **claim 27**, Spies teaches a memory coupled to the encryption engine, wherein the memory stores the second key, and wherein the encryption engine accesses the second key from the memory (col.10).

As per **claim 29**, Spies teaches a computer readable storage medium, comprising program instruction for performing a method comprising:  
encrypting a payload according to a first key (col.5 lines 10-24);

adding a header to the encrypted payload to form a data packet (col.9 lines 40-60);

encrypting the first key according to a second key (col.5 lines 35-53);

encrypting the data packet according to a third key configured for secured communications over a wireless link (col.9 lines 40-60);

transmitting the encrypted first key separate from the encrypted data packet to a server in a first transmission from a device (col.3 lines 5-35; col.5 lines 35-53; col.8 lines 26-41); and

transmitting only the encrypted data packet without said first key over the link to a gateway in a second transmission from the device (col.3 lines 36-50), wherein the gateway decrypts the encrypted data packet to recreate the encrypted payload and the header and forwards the encrypted payload and the header to the server and wherein the server decrypts the encrypted first key received in the first transmission and decrypts the encrypted payload using the decrypted first key (col.10 lines 49-56).

Spies fails to particularly disclose the use of mobile devices wherein a payload comprises location information regarding the geographical location of said devices.

Inoue describes a mobile IP communication scheme for supporting mobile computers moving over different address spaces including the transmission of packets from mobile devices consisting of encrypted payloads containing current location information whereby a header has been appended to the encrypted payload to form a data packet for transmission (col.3 line 59 thru col.4 line 8 and col.9 lines 1-9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Spies the mobile devices and location information as described in Inoue to provide for the expanded use of mobile devices without compromising security.

As per **claim 30**, Spies teaches wherein the first key comprises a symmetric key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67; col.15 lines 43-57).

As per **claim 31**, Spies teaches  
receiving the data packet at the gateway (col.8 lines 44-57);  
decrypting the data packet at the gateway according to the third key (col.8 lines 44-57);

forwarding the encrypted payload to the server and receiving the encrypted first key at the server (col.15 lines 43-57);

decrypting the encrypted first key using a fourth key and decrypting the payload according to the decrypted first key (col.12 line 61 thru col.13 line 8; col.15 lines 43-57).

As per **claim 32**, Spies teaches wherein the first session key comprises a symmetric session key (col.6 line 59 thru col.7 line 67; col.10 lines 57-67; col.15 lines 43-57).

As per **claim 33**, Spies teaches implementing an encryption algorithm selected from a group of encryption algorithms consisting of DESX and DES (col.7 lines 41-55)).

As per **claim 35**, Spies teaches wherein the symmetric session key is generated based on a random number (col.7-col.8; col.10).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara Teslovich whose telephone number is (571) 272-4241. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tamara Teslovich/  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2437